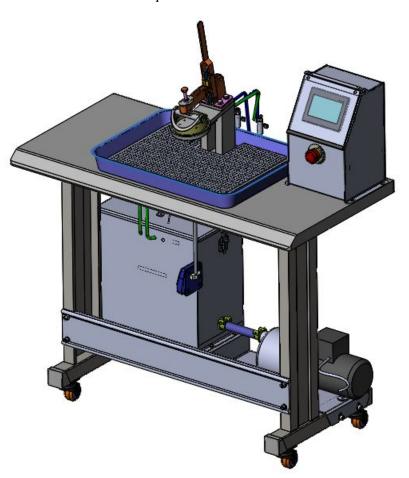


HT-360 Hydrostatic Tester

Operation Manual



is powered by H&H Asia Group Limited

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> Precautions with regard to Safety

Please observe these safety tips for safe, efficient, an injury-free operation of your equipment. By strictly following all instruction contained in this manual you will certainly obtain an excellent performance from the use of this equipment for many years.









> Name Plate

/	Model: H	HT-360						
	Hydrostatic Tester							
ſ								
	Voltage	Frequency	Power	Pressure Range	Weight			
	220 V	50/60 Hz	370 W	0~30 PSI	65 Kg			
	Date :			S/N :				
		H&H	Asia Gro	up Ltd.				
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> Introduction

Thank you for your choosing of HT-360 which is manufactured by H&H.

This manual is aimed for the operators to understand the machine and avoid damage to the machine or personnel. Please read this manual carefully and keep it well for daily reference usage.

> Specifications

Model	:	HT-360
Voltage	:	220 V, single phase
Frequency	:	50/60 Hz
Water Pressure Range	:	0~30 psi
Timer range	:	1~3000 Sec
Overall Dimensions	:	1000mm(L) x 500mm(W) x 1350mm(H)
Overall Weight	:	65 kg

Note: due to continuous improvement, specifications are subjected to change without prior notification



> Features

- Control system user friendly touch screen interface.
- Safety protection –several kinds of alarm can protect the user and device.
- Individual test time setting control.

> <u>Preparation</u>

1. Firstly, make sure that the water tank is at least 75% full (otherwise unsteady water flow may occur).

Caution!!! Water pump may damage if the water level is too low.

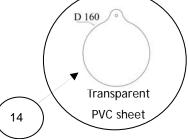
- 2. With the locking ring in the upward position, place a sealed seam on the silicon pad and make sure that the sealing tape is facing upward. You can place a transparent PVC sheet over the targeted sealed seam for safety pre-examine or for rough general check beforehand. In general, it is a normal practice in the waterproof industrial field to place the transparent PVC sheet or something similar when testing for elastic cloth or the water test requirement for the cloth is over 5 psi. A transparent PVC sheet will peg and delivery with the hydrostatic tester as accessory.
- 3. Lower the locking ring into position so that the fabric being tested is clamped tightly.
- 4. Start the water pump by the knee pedal (right under the work table) with a nudge once or press the start button on the HMI screen.
- A timer is installed at the panel and you can preset the running time of the water pump between 0~3000 sec.
- 6. Stop button (at the HMI) or the knee pedal is also available when you want to stop the pump at any time.
- 7. Adjusting both the <u>inlet</u> and <u>outlet</u> water valves in the fully open position (vertical); gradually decrease the water flow from the water pump by turning the water <u>inlet</u> valve so that the water pressure is at about <u>1.5 psi</u>.
- Gradually decrease the water flow by closing the water <u>outlet</u> valve. The water pressure will build up under the fabric accordingly. Closing the water <u>outlet</u> valve further, in order to increase the water pressure until the desired pressure is reached.
- 9. Observe the coating side of the fabric sample for any sign of leakage, use a piece of tissue for examination if desired.
- 10. When testing is done, open the water **<u>outlet</u>** valve fully to release water back to the water tank.
- 11. Stop the water pump or wait until the auto-run cycle to complete.
- 12. Allow enough time for the water underneath the fabric to escape before opening the clamp.
- 13. Switch off the main power of the water pump or continue with another hydrostatic test.



> Hydrostatic Tester construction



- 6. Adjusting screw
- 7. Upper clamp ring
- 8. Lower clamp ring with silicon pad
- Water basin 9.
- 10. Work table
- 11. Water tank
- 12. Water pump
- 13. Knee pedal
- 14. Transparent PVC sheet (accessory for cloth testing)





> Operation and Controls

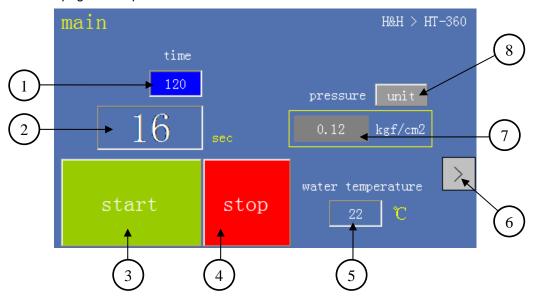
>> Touch Screen Control

The 1st & 2rd pages are welcome note & program loading pages. It will show up once the machine is powered on.



>> Main page

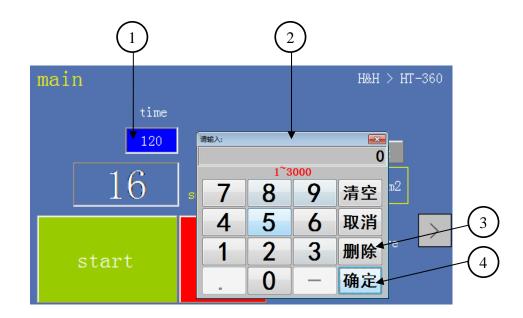
The 3rd page of the panel is named "main" means it is the main control of the machine.



- 1. test time preset button & display.
- 2. test time calaculate.
- 3. start the water pump.
- 4. stop the water pump.
- 5. display the temperature of the water.
- 6. next page button.
- 7. display the pressure.
- 8. pressure unit selector (kgf/cm2. MPa, Bar, Psi).

>> Time setting

At the main page, you can preset the test time.

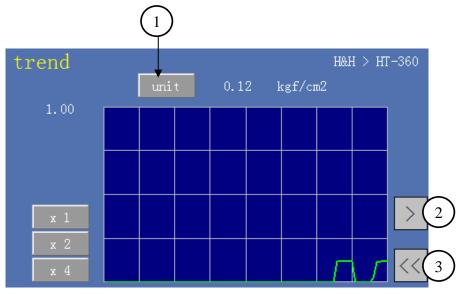


- 1. test time preset button & display
- 2. input key pad
- 3. cancel
- 4. input accept

Press button #1 can preset the test time. The key pad #2 for test time setting will pop up. You can enter the test time via this interface (input range 1~3000 seconds) and confirm with the button #4 "ok" or if the original default setting is satisfied. Press button #3 "cancel" if there is no need to change.

>> Trend

The next page after "main" page is "trend" page.



You can check the trend of the working pressure.



- 1. pressure unit selector (kgf/cm2. MPa, bar, psi).
- 2. turn to next page.
- 3. back to main page.

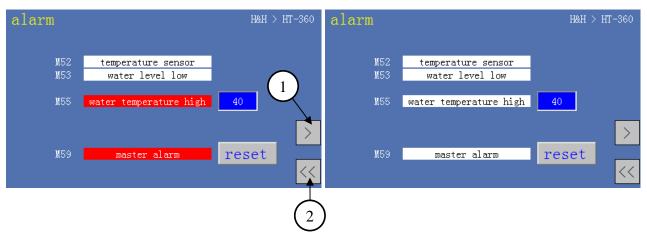
>> Alarm

The next page after "trend" page is "alarm" page.

Push the "reset" once to clear the previous alarm.

Below left is showing some alarms and they caused master alarm.

Normal status was shown on the right.

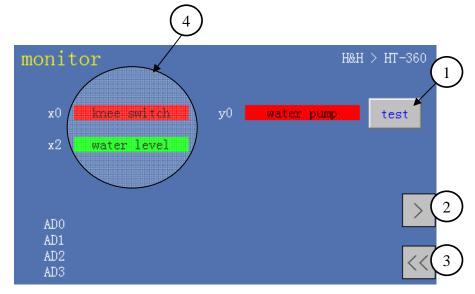


1. turn to next page.

2. back to main page.

>> Monitor

The next page after "alarm" page is "monitor" page.



- 1. press to activate the water pump.
- 2. turn to next page.
- 3. back to main page.
- 4. feedback of the respective parts (triggered in green while others in red).

>> Program version

program version H&H > HT-360 display versior 4 PLC version 10 model code 360 > 1 <<2

The next page after "monitor" page is "program version" page.

It is an information page for your reference and we can use these data for future maintenance usage.



>> Language Selection

 language
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 中文

 english

 百言转换

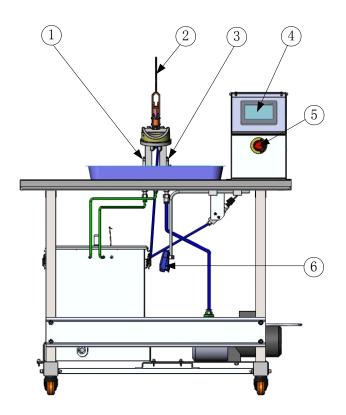
 to main page

The next page after "program version" page is "language selection" page.

You can change the language between Chinese and English by push the button #1.



>> Manual Control Console



- 1. outlet water valves
- 2. clamp handle
- 3. inlet water valves
- 4. HMI touch screen control panel
- 5. emergency stop button
- 6. Knee pedal



> Trouble Shooting

Problem	Cause	Solution
	Power supply not connected	Plug in a suitable power supply
Display not light up Whole machine not	Power plug not secure	Try to plug in socket again
working	Overloaded or tripped of circuit breaker	Check the problem and reset breakers
Excess noise and vibration during operation	Floor is not level or wheels are not locked	Reposition machine to a level and solid floor

> Appendix A : Pressure conversion table

	Мра	psi	kg/cm ²	bar	atm
1 Mpa	1	145	10.2	10	9.869
1 psi	0.006895	1	0.0703	0.0689	0.068
1 kg/cm ²	0.09804	14.223	1	0.9804	0.9678
1 bar	0.1	14.5	1.0197	1	0.9872
1 atm	0.101325	14.696	1.02	1.0133	1